

8/8/2014

Ms. Kristie Warr

Weston Solutions, Inc.

5599 San Felipe

Suite 700

Houston TX 77056

Project Name:

Project #:

Workorder #: 1408079

Dear Ms. Kristie Warr

The following report includes the data for the above referenced project for sample(s) received on 8/7/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Brian Whittaker

Project Manager

WORK ORDER #: 1408079

Work Order Summary

CLIENT: Ms. Kristie Warr
Weston Solutions, Inc.
5599 San Felipe
Suite 700
Houston, TX 77056

BILL TO: Ms. Kristie Warr
Weston Solutions, Inc.
5599 San Felipe
Suite 700
Houston, TX 77056

PHONE: 713-985-6636

P.O. #

FAX:

PROJECT #

DATE RECEIVED: 08/07/2014

CONTACT: Brian Whittaker

DATE COMPLETED: 08/08/2014

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	CES-CS-Summa-01	Modified TO-15	8.5 "Hg	5 psi
02A	CES-CS-Summa-02	Modified TO-15	8.0 "Hg	5 psi
03A	CES-CS-Summa-03	Modified TO-15	7.0 "Hg	5 psi
04A	CES-CS-Summa-04	Modified TO-15	7.5 "Hg	5 psi
05A	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 08/08/14

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-13-6, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Weston Solutions, Inc.
Workorder# 1408079

Four 6 Liter Summa Canister (100% Certified) samples were received on August 07, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

The Chain of Custody (COC) information for sample CES-CS-Summa-04 did not match the entry on the sample tag with regard to sample identification. The information on the sample tag was used to process and report the sample.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The hydrocarbon profile present in samples CES-CS-Summa-03 and CES-CS-Summa-04 did not resemble that of commercial gasoline. Results were calculated using the response factor derived from the gasoline calibration.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

- B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
- J - Estimated value.
- E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: CES-CS-Summa-01

Lab ID#: 1408079-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.52	0.92	2.6
Freon 11	0.19	0.23	1.0	1.3
Ethanol	0.94	1.8	1.8	3.3
Acetone	0.94	4.1	2.2	9.7

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Acetaldehyde	75-07-0	74%	1.2 NJ
1,4-Pentadiene	591-93-5	96%	2.7 NJ

Client Sample ID: CES-CS-Summa-02

Lab ID#: 1408079-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.54	0.90	2.7
Freon 11	0.18	0.26	1.0	1.5
Ethanol	0.92	1.8	1.7	3.4
Acetone	0.92	5.6	2.2	13
Toluene	0.18	0.27	0.69	1.0

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Acetaldehyde	75-07-0	83%	1.4 NJ
Butane, 2-methyl-	78-78-4	86%	1.0 NJ
1,3-Butadiene, 2-methyl-	78-79-5	94%	2.2 NJ

Client Sample ID: CES-CS-Summa-03

Lab ID#: 1408079-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.54	0.86	2.7
Freon 11	0.18	0.25	0.98	1.4
Ethanol	0.88	3.9	1.6	7.4

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: CES-CS-Summa-03

Lab ID#: 1408079-03A

Acetone	0.88	5.8	2.1	14
Toluene	0.18	1.9	0.66	7.2
Ethyl Benzene	0.18	0.26	0.76	1.1
m,p-Xylene	0.18	0.98	0.76	4.2
o-Xylene	0.18	0.33	0.76	1.4
4-Ethyltoluene	0.18	0.26	0.86	1.2
1,2,4-Trimethylbenzene	0.18	0.42	0.86	2.0
TPH ref. to Gasoline (MW=100)	18	24	72	98

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Acetaldehyde	75-07-0	64%	1.5 NJ
Methyl ethyl disulfide	20333-39-5	91%	0.88 NJ
Diethyl disulfide	110-81-6	93%	1.3 NJ
Heptane, 2,2,4,6,6-pentamethyl-	13475-82-6	50%	2.1 NJ
Benzene, 1,2,4,5-tetramethyl-	95-93-2	41%	1.6 NJ
Di-tert-butyl disulfide	110-06-5	46%	1.5 NJ

Client Sample ID: CES-CS-Summa-04

Lab ID#: 1408079-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.88	2.4
Chloromethane	0.90	1.7	1.8	3.5
Freon 11	0.18	0.26	1.0	1.4
Ethanol	0.90	2.2	1.7	4.1
Acetone	0.90	10	2.1	24
2-Butanone (Methyl Ethyl Ketone)	0.90	0.93	2.6	2.8
Benzene	0.18	0.24	0.57	0.78
Heptane	0.18	0.19	0.73	0.76
1,4-Dioxane	0.18	0.39	0.64	1.4
Toluene	0.18	1.0	0.67	3.8
Ethyl Benzene	0.18	0.39	0.78	1.7
m,p-Xylene	0.18	1.5	0.78	6.7
o-Xylene	0.18	0.46	0.78	2.0

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: CES-CS-Summa-04

Lab ID#: 1408079-04A

4-Ethyltoluene	0.18	0.30	0.88	1.5
1,2,4-Trimethylbenzene	0.18	0.53	0.88	2.6
TPH ref. to Gasoline (MW=100)	18	100	73	410

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Acetaldehyde	75-07-0	64%	2.6 NJ
2,3-Butanedione	431-03-8	80%	1.9 NJ
2,4-Dimethyl-1,5-diazabicyclo[3.1.0]hexa	1000283-20-9	46%	1.6 NJ
1-Silacyclo-3-pentene	7049-25-4	46%	2.2 NJ
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	49%	2.2 NJ
1-Octanol, 5,7,7-trimethyl-2-(1,3,3-trim	36400-98-3	43%	3.6 NJ
1H-Pyrazole, 4,5-dihydro-4,5-dimethyl-	28019-94-5	47%	3.1 NJ
2-Propyl-1-pentanol	58175-57-8	53%	2.7 NJ
3-Cyclohexene-1-carboxylic acid, methyl	6493-77-2	78%	7.0 NJ
Decahydro-4,4,8,9,10-pentamethylnaphthal	80655-44-3	83%	6.6 NJ



Air Toxics

Client Sample ID: CES-CS-Summa-01

Lab ID#: 1408079-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080708	Date of Collection:	8/6/14 5:00:00 PM
Dil. Factor:	1.87	Date of Analysis:	8/7/14 05:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.52	0.92	2.6
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.94	Not Detected	1.9	Not Detected
Vinyl Chloride	0.19	Not Detected	0.48	Not Detected
1,3-Butadiene	0.19	Not Detected	0.41	Not Detected
Bromomethane	0.94	Not Detected	3.6	Not Detected
Chloroethane	0.94	Not Detected	2.5	Not Detected
Freon 11	0.19	0.23	1.0	1.3
Ethanol	0.94	1.8	1.8	3.3
Freon 113	0.19	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Acetone	0.94	4.1	2.2	9.7
2-Propanol	0.94	Not Detected	2.3	Not Detected
Carbon Disulfide	0.94	Not Detected	2.9	Not Detected
3-Chloropropene	0.94	Not Detected	2.9	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.19	Not Detected	0.67	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Hexane	0.19	Not Detected	0.66	Not Detected
1,1-Dichloroethane	0.19	Not Detected	0.76	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.94	Not Detected	2.8	Not Detected
cis-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Tetrahydrofuran	0.94	Not Detected	2.8	Not Detected
Chloroform	0.19	Not Detected	0.91	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	Not Detected	0.64	Not Detected
Carbon Tetrachloride	0.19	Not Detected	1.2	Not Detected
2,2,4-Trimethylpentane	0.94	Not Detected	4.4	Not Detected
Benzene	0.19	Not Detected	0.60	Not Detected
1,2-Dichloroethane	0.19	Not Detected	0.76	Not Detected
Heptane	0.19	Not Detected	0.77	Not Detected
Trichloroethene	0.19	Not Detected	1.0	Not Detected
1,2-Dichloropropane	0.19	Not Detected	0.86	Not Detected
1,4-Dioxane	0.19	Not Detected	0.67	Not Detected
Bromodichloromethane	0.19	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
4-Methyl-2-pentanone	0.19	Not Detected	0.77	Not Detected
Toluene	0.19	Not Detected	0.70	Not Detected
trans-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.94	Not Detected	3.8	Not Detected



Client Sample ID: CES-CS-Summa-01

Lab ID#: 1408079-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080708	Date of Collection:	8/6/14 5:00:00 PM
Dil. Factor:	1.87	Date of Analysis:	8/7/14 05:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.4	Not Detected
Chlorobenzene	0.19	Not Detected	0.86	Not Detected
Ethyl Benzene	0.19	Not Detected	0.81	Not Detected
m,p-Xylene	0.19	Not Detected	0.81	Not Detected
o-Xylene	0.19	Not Detected	0.81	Not Detected
Styrene	0.19	Not Detected	0.80	Not Detected
Bromoform	0.19	Not Detected	1.9	Not Detected
Cumene	0.19	Not Detected	0.92	Not Detected
1,1,2,2-Tetrachloroethane	0.19	Not Detected	1.3	Not Detected
Propylbenzene	0.19	Not Detected	0.92	Not Detected
4-Ethyltoluene	0.19	Not Detected	0.92	Not Detected
1,3,5-Trimethylbenzene	0.19	Not Detected	0.92	Not Detected
1,2,4-Trimethylbenzene	0.19	Not Detected	0.92	Not Detected
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.19	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.94	Not Detected	6.9	Not Detected
Hexachlorobutadiene	0.94	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	19	Not Detected	76	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Acetaldehyde	75-07-0	74%	1.2 NJ
1,4-Pentadiene	591-93-5	96%	2.7 NJ

NJ =The identification is based on presumptive evidence; estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: CES-CS-Summa-02

Lab ID#: 1408079-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080711	Date of Collection:	8/6/14 5:06:00 PM
Dil. Factor:	1.83	Date of Analysis:	8/7/14 08:41 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.54	0.90	2.7
Freon 114	0.18	Not Detected	1.3	Not Detected
Chloromethane	0.92	Not Detected	1.9	Not Detected
Vinyl Chloride	0.18	Not Detected	0.47	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.92	Not Detected	3.6	Not Detected
Chloroethane	0.92	Not Detected	2.4	Not Detected
Freon 11	0.18	0.26	1.0	1.5
Ethanol	0.92	1.8	1.7	3.4
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.92	5.6	2.2	13
2-Propanol	0.92	Not Detected	2.2	Not Detected
Carbon Disulfide	0.92	Not Detected	2.8	Not Detected
3-Chloropropene	0.92	Not Detected	2.9	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.66	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Hexane	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.74	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.92	Not Detected	2.7	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
Chloroform	0.18	Not Detected	0.89	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Cyclohexane	0.18	Not Detected	0.63	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.2	Not Detected
2,2,4-Trimethylpentane	0.92	Not Detected	4.3	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.74	Not Detected
Heptane	0.18	Not Detected	0.75	Not Detected
Trichloroethene	0.18	Not Detected	0.98	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.84	Not Detected
1,4-Dioxane	0.18	Not Detected	0.66	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.75	Not Detected
Toluene	0.18	0.27	0.69	1.0
trans-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.92	Not Detected	3.7	Not Detected



Client Sample ID: CES-CS-Summa-02

Lab ID#: 1408079-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080711	Date of Collection:	8/6/14 5:06:00 PM
Dil. Factor:	1.83	Date of Analysis:	8/7/14 08:41 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	Not Detected	0.79	Not Detected
o-Xylene	0.18	Not Detected	0.79	Not Detected
Styrene	0.18	Not Detected	0.78	Not Detected
Bromoform	0.18	Not Detected	1.9	Not Detected
Cumene	0.18	Not Detected	0.90	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.90	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.90	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.90	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.90	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.92	Not Detected	6.8	Not Detected
Hexachlorobutadiene	0.92	Not Detected	9.8	Not Detected
TPH ref. to Gasoline (MW=100)	18	Not Detected	75	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Acetaldehyde	75-07-0	83%	1.4 NJ
Butane, 2-methyl-	78-78-4	86%	1.0 NJ
1,3-Butadiene, 2-methyl-	78-79-5	94%	2.2 NJ

NJ =The identification is based on presumptive evidence; estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: CES-CS-Summa-03

Lab ID#: 1408079-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080710	Date of Collection:	8/6/14 6:58:00 PM
Dil. Factor:	1.75	Date of Analysis:	8/7/14 07:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.54	0.86	2.7
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.88	Not Detected	1.8	Not Detected
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
1,3-Butadiene	0.18	Not Detected	0.39	Not Detected
Bromomethane	0.88	Not Detected	3.4	Not Detected
Chloroethane	0.88	Not Detected	2.3	Not Detected
Freon 11	0.18	0.25	0.98	1.4
Ethanol	0.88	3.9	1.6	7.4
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	5.8	2.1	14
2-Propanol	0.88	Not Detected	2.2	Not Detected
Carbon Disulfide	0.88	Not Detected	2.7	Not Detected
3-Chloropropene	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Hexane	0.18	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.18	Not Detected	0.56	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Heptane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
1,4-Dioxane	0.18	Not Detected	0.63	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.72	Not Detected
Toluene	0.18	1.9	0.66	7.2
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	Not Detected	3.6	Not Detected

Client Sample ID: CES-CS-Summa-03

Lab ID#: 1408079-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080710	Date of Collection:	8/6/14 6:58:00 PM
Dil. Factor:	1.75	Date of Analysis:	8/7/14 07:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	0.26	0.76	1.1
m,p-Xylene	0.18	0.98	0.76	4.2
o-Xylene	0.18	0.33	0.76	1.4
Styrene	0.18	Not Detected	0.74	Not Detected
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.18	0.26	0.86	1.2
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	0.42	0.86	2.0
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected
TPH ref. to Gasoline (MW=100)	18	24	72	98

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Acetaldehyde	75-07-0	64%	1.5 NJ
Methyl ethyl disulfide	20333-39-5	91%	0.88 NJ
Diethyl disulfide	110-81-6	93%	1.3 NJ
Heptane, 2,2,4,6,6-pentamethyl-	13475-82-6	50%	2.1 NJ
Benzene, 1,2,4,5-tetramethyl-	95-93-2	41%	1.6 NJ
Di-tert-butyl disulfide	110-06-5	46%	1.5 NJ

NJ =The identification is based on presumptive evidence; estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	123	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: CES-CS-Summa-04

Lab ID#: 1408079-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080712	Date of Collection:	8/6/14 5:01:00 PM
Dil. Factor:	1.79	Date of Analysis:	8/7/14 09:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.88	2.4
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.90	1.7	1.8	3.5
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.90	Not Detected	3.5	Not Detected
Chloroethane	0.90	Not Detected	2.4	Not Detected
Freon 11	0.18	0.26	1.0	1.4
Ethanol	0.90	2.2	1.7	4.1
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	10	2.1	24
2-Propanol	0.90	Not Detected	2.2	Not Detected
Carbon Disulfide	0.90	Not Detected	2.8	Not Detected
3-Chloropropene	0.90	Not Detected	2.8	Not Detected
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Hexane	0.18	Not Detected	0.63	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	0.93	2.6	2.8
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.87	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Cyclohexane	0.18	Not Detected	0.62	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.18	0.24	0.57	0.78
1,2-Dichloroethane	0.18	Not Detected	0.72	Not Detected
Heptane	0.18	0.19	0.73	0.76
Trichloroethene	0.18	Not Detected	0.96	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.83	Not Detected
1,4-Dioxane	0.18	0.39	0.64	1.4
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.73	Not Detected
Toluene	0.18	1.0	0.67	3.8
trans-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.90	Not Detected	3.7	Not Detected



Client Sample ID: CES-CS-Summa-04

Lab ID#: 1408079-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080712	Date of Collection:	8/6/14 5:01:00 PM
Dil. Factor:	1.79	Date of Analysis:	8/7/14 09:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.82	Not Detected
Ethyl Benzene	0.18	0.39	0.78	1.7
m,p-Xylene	0.18	1.5	0.78	6.7
o-Xylene	0.18	0.46	0.78	2.0
Styrene	0.18	Not Detected	0.76	Not Detected
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.88	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.88	Not Detected
4-Ethyltoluene	0.18	0.30	0.88	1.5
1,3,5-Trimethylbenzene	0.18	Not Detected	0.88	Not Detected
1,2,4-Trimethylbenzene	0.18	0.53	0.88	2.6
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.93	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.5	Not Detected
TPH ref. to Gasoline (MW=100)	18	100	73	410

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Acetaldehyde	75-07-0	64%	2.6 NJ
2,3-Butanedione	431-03-8	80%	1.9 NJ
2,4-Dimethyl-1,5-diazabicyclo[3.1.0]hexa	1000283-20-9	46%	1.6 NJ
1-Silacyclo-3-pentene	7049-25-4	46%	2.2 NJ
Benzene,	99-87-6	49%	2.2 NJ
1-methyl-4-(1-methylethyl)-1-Octanol,	36400-98-3	43%	3.6 NJ
5,7,7-trimethyl-2-(1,3,3-trimethyl-1H-Pyrazole,	28019-94-5	47%	3.1 NJ
4,5-dihydro-4,5-dimethyl-2-Propyl-1-pentanol	58175-57-8	53%	2.7 NJ
3-Cyclohexene-1-carboxylic acid, methyl	6493-77-2	78%	7.0 NJ
Decahydro-4,4,8,9,10-pentamethyl naphthal	80655-44-3	83%	6.6 NJ



Air Toxics

Client Sample ID: CES-CS-Summa-04

Lab ID#: 1408079-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080712	Date of Collection: 8/6/14 5:01:00 PM
Dil. Factor:	1.79	Date of Analysis: 8/7/14 09:35 PM

NJ =The identification is based on presumptive evidence; estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1408079-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080707	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/7/14 04:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1408079-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080707	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/7/14 04:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
TPH ref. to Gasoline (MW=100)	10	Not Detected	41	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1408079-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/7/14 09:56 AM

Compound	%Recovery
Freon 12	111
Freon 114	100
Chloromethane	111
Vinyl Chloride	109
1,3-Butadiene	107
Bromomethane	107
Chloroethane	110
Freon 11	113
Ethanol	98
Freon 113	92
1,1-Dichloroethene	88
Acetone	90
2-Propanol	89
Carbon Disulfide	88
3-Chloropropene	91
Methylene Chloride	97
Methyl tert-butyl ether	88
trans-1,2-Dichloroethene	96
Hexane	95
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	87
cis-1,2-Dichloroethene	94
Tetrahydrofuran	104
Chloroform	99
1,1,1-Trichloroethane	100
Cyclohexane	91
Carbon Tetrachloride	113
2,2,4-Trimethylpentane	96
Benzene	112
1,2-Dichloroethane	123
Heptane	111
Trichloroethene	101
1,2-Dichloropropane	114
1,4-Dioxane	102
Bromodichloromethane	117
cis-1,3-Dichloropropene	118
4-Methyl-2-pentanone	149 Q
Toluene	108
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	108
Tetrachloroethene	99
2-Hexanone	112



Air Toxics

Client Sample ID: CCV

Lab ID#: 1408079-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/7/14 09:56 AM

Compound	%Recovery
Dibromochloromethane	109
1,2-Dibromoethane (EDB)	105
Chlorobenzene	100
Ethyl Benzene	101
m,p-Xylene	101
o-Xylene	103
Styrene	104
Bromoform	107
Cumene	104
1,1,2,2-Tetrachloroethane	110
Propylbenzene	109
4-Ethyltoluene	107
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	100
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	96
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	97
1,2,4-Trichlorobenzene	95
Hexachlorobutadiene	100
TPH ref. to Gasoline (MW=100)	100

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 1408079-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/7/14 11:39 AM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	95	70-130
Chloromethane	104	70-130
Vinyl Chloride	102	70-130
1,3-Butadiene	104	70-130
Bromomethane	100	70-130
Chloroethane	101	70-130
Freon 11	106	70-130
Ethanol	89	70-130
Freon 113	96	70-130
1,1-Dichloroethene	94	70-130
Acetone	87	70-130
2-Propanol	93	70-130
Carbon Disulfide	78	70-130
3-Chloropropene	77	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	79	70-130
trans-1,2-Dichloroethene	78	70-130
Hexane	89	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
cis-1,2-Dichloroethene	99	70-130
Tetrahydrofuran	96	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	93	70-130
Cyclohexane	88	70-130
Carbon Tetrachloride	79	70-130
2,2,4-Trimethylpentane	88	70-130
Benzene	103	70-130
1,2-Dichloroethane	117	70-130
Heptane	105	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	105	70-130
1,4-Dioxane	93	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	114	70-130
4-Methyl-2-pentanone	141 Q	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	92	70-130
2-Hexanone	91	70-130

Client Sample ID: LCS

Lab ID#: 1408079-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/7/14 11:39 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	95	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	90	70-130
m,p-Xylene	93	70-130
o-Xylene	91	70-130
Styrene	94	70-130
Bromoform	95	70-130
Cumene	96	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	91	70-130
1,2,4-Trimethylbenzene	86	70-130
1,3-Dichlorobenzene	87	70-130
1,4-Dichlorobenzene	83	70-130
alpha-Chlorotoluene	94	70-130
1,2-Dichlorobenzene	86	70-130
1,2,4-Trichlorobenzene	81	70-130
Hexachlorobutadiene	90	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1408079-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/7/14 12:37 PM

Compound	%Recovery	Method Limits
Freon 12	103	70-130
Freon 114	96	70-130
Chloromethane	104	70-130
Vinyl Chloride	102	70-130
1,3-Butadiene	104	70-130
Bromomethane	101	70-130
Chloroethane	104	70-130
Freon 11	107	70-130
Ethanol	84	70-130
Freon 113	99	70-130
1,1-Dichloroethene	95	70-130
Acetone	88	70-130
2-Propanol	83	70-130
Carbon Disulfide	77	70-130
3-Chloropropene	78	70-130
Methylene Chloride	102	70-130
Methyl tert-butyl ether	81	70-130
trans-1,2-Dichloroethene	79	70-130
Hexane	90	70-130
1,1-Dichloroethane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	82	70-130
cis-1,2-Dichloroethene	99	70-130
Tetrahydrofuran	96	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	87	70-130
Carbon Tetrachloride	80	70-130
2,2,4-Trimethylpentane	89	70-130
Benzene	101	70-130
1,2-Dichloroethane	112	70-130
Heptane	103	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	89	70-130
Bromodichloromethane	108	70-130
cis-1,3-Dichloropropene	109	70-130
4-Methyl-2-pentanone	137 Q	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	86	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	92	70-130
2-Hexanone	94	70-130

Client Sample ID: LCSD

Lab ID#: 1408079-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e080704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/7/14 12:37 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	102	70-130
1,2-Dibromoethane (EDB)	96	70-130
Chlorobenzene	91	70-130
Ethyl Benzene	91	70-130
m,p-Xylene	94	70-130
o-Xylene	92	70-130
Styrene	94	70-130
Bromoform	96	70-130
Cumene	97	70-130
1,1,2,2-Tetrachloroethane	98	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	101	70-130
1,3,5-Trimethylbenzene	94	70-130
1,2,4-Trimethylbenzene	88	70-130
1,3-Dichlorobenzene	88	70-130
1,4-Dichlorobenzene	85	70-130
alpha-Chlorotoluene	96	70-130
1,2-Dichlorobenzene	86	70-130
1,2,4-Trichlorobenzene	82	70-130
Hexachlorobutadiene	90	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	101	70-130